

Feature article

Implementation of SEA in Flanders: Attitudes of key stakeholders and a user-friendly methodology

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Abstract

The EIA Centre, Vrije Universiteit Brussel, Belgium, was commissioned by the Ministry of the Flemish Community to develop user-friendly methodology for strategic environmental assessment (SEA). One component of this study is a survey of individuals involved in the Flemish environmental impact assessment process. Its most important result is the very low percentage of respondents not in favour of SEA and the lack of awareness of many administrators of the environmental consequences of their decisions, at the level of policies, plans, and programs. The majority of respondents are in favor of screening procedures in collaboration with specialists, an examination of alternatives, public participation, and quality control. Proposals for an SEA system for Flanders and the challenges facing its implementation in the future are discussed. Flexibility is a major feature of the proposed SEA system. Administrative services can choose between an integration of SEA principles into existing planning procedures or an introduction of a separate SEA procedure. © 2000 Elsevier Science Inc. All rights reserved.

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1. Introduction

Environmental impact assessment (EIA) was introduced in the Flemish Region of Belgium in 1989 [4] and currently is limited to EIA at the project level. Nonetheless, impact assessment at the level of planning and policy-

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making is needed to solve problems of efficiency of the existing EIA system [5]. Flemish authorities are attempting to overcome the lack of a formal strategic environmental assessment (SEA) system by introducing “feasibility studies.” Such studies are EIAs of plans prepared voluntarily by public authorities, following the same procedures as the project-level EIA. Limitations include the lack of a formal procedure and guidelines, and the absence of specialized authorities to support the process. Due to these limitations and the Flemish government’s intention to introduce a new EIA decree for the Flemish Region, the EIA Centre at the Human Ecology Department, Vrije Universiteit Brussel, was commissioned by the Ministry of the Flemish Community to develop a user-friendly methodology for SEA to be introduced into decision-making by the Flemish government [12]. The European Commission’s intention to introduce an EC Directive “on the assessment of the effects of certain plans and programmes on the environment” was an important incentive for the Flemish authorities to be prepared for future SEA implementation.

The project consisted of a survey among stakeholders involved in a future SEA system and the proposal of a user-friendly SEA methodology. This methodology consists of a functional SEA process plus procedure and a practical manual. The current proposal for SEA methodology does not necessarily reflect the position of the Flemish government. Its full or partial adoption and implementation will be a political decision. This paper entails a discussion of the survey results and a presentation of user-friendly SEA methodology.

2. Methodology

A survey was designed on the basis of questionnaires adapted to four target groups. Each questionnaire consisted of a selection of standard questions. The following SEA-related questions were common to all four questionnaires, on which further discussions are based:

- Should SEA be introduced?
- Who should decide if an SEA has to be carried out?
- When should public participation be organized?
- Should alternatives be studied in SEA?
- Should quality control of SEA be organized?

The following four groups were contacted:

1. Heads of the departments of the administrative services of the Ministry of the Flemish Community
2. EIA experts accredited by the Flemish authorities
3. The authority that supervises EIA implementation in Flanders
4. Representatives of Belgian employers, unions, environmental pressure groups, political parties, and Flemish advisory boards involved in EIA.

Table 1

Response rate of the four groups contacted

Group	No. of surveys sent	No. of surveys received	Response rate
Administrative services	150	100	67%
EIA experts	239	72	30%
Authority that supervises EIA implementation	5	4	80%
Representatives of Belgian employers, unions, environmental pressure groups, political parties, and advisory boards	13	9	69%

All questionnaires were sent by mail in early 1997. Reminders were mailed to those who did not respond. Most questions were of closed nature, but respondents could choose to fill in an alternative reply. Individuals who expressed exceptional interest in the survey were contacted and further interviewed in person using a standard questionnaire.

The inventory project of the Human Ecology Department on existing SEA systems worldwide [9] provided basic data for the development of user-friendly SEA methodology. This was complemented with recent scientific literature in the course of the project. Other informational sources included a survey conducted at provincial and local government levels [6] and the previously discussed survey among key stakeholders. Furthermore, the decision-making processes in the Flemish administration were examined.

Survey results and proposals for SEA methodology were presented and discussed by an interdisciplinary group of experts consisting of a political scientist, a geographer, a legal expert, and an economist. These individuals were invited to reflect on the feasibility of the proposals in the context of the planning, decision-making, policy-making, and EIA culture of the Flemish Region.

3. Survey results

Table 1 shows the response rate for the contacted groups. The response rate for EIA experts can be considered sufficient and the response rate for the other groups is high. Not all groups had an official position in relation to SEA. Therefore, the replies sometimes reflect only the personal viewpoints of environmental specialists working in the respective organizations.

Table 2 gives an overview of the most important survey results. All contact groups indicated a strong need to introduce SEA: 96% to 100% of EIA experts, the supervisory authority, and representatives of pressure groups agree to introduce SEA. Twenty-four percent of administrative

Table 2
Most important results of the survey among key stakeholders

	Administrative services (of 100 replies)	EIA experts (of 72 replies)	Supervisory authority (of 4 replies)	Representatives of pressure groups (of 9 replies)
1. Should SEA be introduced?	<ul style="list-style-type: none"> • For all PPPs: 24 (24%) • Only if important impacts are expected: 61 (61%) • Never: 1 (1%) • The initiator: 74 (74%) • Another institution: 17 (17%) • Never: 21 (21%) • Both at the beginning and at the end of the SEA process: 31 (31%) • Yes: 59 (59%) • Only if important consequences can be expected: 32 (32%) • No: 3 (3%) • Yes: in all cases: 47 (47%) • Only for important PPPs: 38 (38%) • No: 2 (2%) 	<ul style="list-style-type: none"> • Yes: 69 (96%) 	<ul style="list-style-type: none"> • Yes: 4 (100%) 	<ul style="list-style-type: none"> • Yes: 9 (100%)
2. Who should decide if an SEA has to be made?		<ul style="list-style-type: none"> • Specialized administrative service/external experts: 57 (79%) • The initiator: 15 (21%) • During decision-making: 45 (62%) • At the early stages of the SEA process: 30 (42%) • Yes: 61 (85%) 	<ul style="list-style-type: none"> • The initiator in cooperation with experts of the supervisory authority: 3 (75%) • During decision-making: 4 (100%) • During the scoping phase: 3 (75%) • Yes: 4 (100%) 	<ul style="list-style-type: none"> • A specialized administrative service together with external experts: 5 (55%) • During decision-making: 8 (89%) • During the scoping phase: 6 (67%) • Yes: 9 (100%)
3. When should public participation be organized?				
4. Should alternatives be studied in SEA?				
5. Should quality control of SEA be organized?		<ul style="list-style-type: none"> • Yes: 70 (97%) 	<ul style="list-style-type: none"> • Yes: 4 (100%) 	<ul style="list-style-type: none"> • Yes: 9 (100%) • Yes, by an independent commission: 7 (78%)

services would like SEA for all policies, plans, and programs (PPPs), and 61% would only like SEA when important impacts are expected. Only 1% of administrative services would not like SEA to be introduced. Seventy-four percent of administrative services propose that they can decide themselves if an SEA has to be prepared, but a majority of respondents of the other groups feel this decision should be made in collaboration with an outside expert group. Twenty-one percent of administrative services do not want any form of public participation during SEA. Eighty-five to 100% of EIA experts, the supervisory authority, and representatives of pressure groups favor the examination of alternatives in SEA. Only 3% of administrative services would not like alternatives. Ninety-seven to 100% of EIA experts, the supervisory authority, and representatives of pressure groups would like that the quality of SEA is checked. Only 2% of administrative services do not want any form of quality control. EIA experts, the supervisory authority, and representatives of pressure groups were asked if SEA should have a legislative basis. Eighty-two to 100% of respondents favor this component.

4. Discussion of survey results

The most important result of the survey is the indication of broad-based support among key stakeholders to examine the environmental consequences of PPPs. None of the groups contacted strongly disagree with the introduction of SEA. A minority of public officials are very much opposed to SEA, because they feel it will interfere with the efficient functioning of their service.

Many respondents do not realize the importance of the environmental consequences of the activities of their own department. They agree that SEA is an interesting instrument, but should only be applied by the other departments. Information distribution on SEA should be increased, because not every respondent has a correct insight in the possibilities, function, role, and value of SEA. An important training effort is needed to explain what SEA is about and how administrative services can benefit from it. It is not surprising that environmental pressure groups and certain political parties are more enthusiastic about the introduction of SEA than the employers and certain administrative services.

In-depth discussions with respondents show the need for a flexible SEA system that takes into account the different needs and experiences of the various administrative services and the wide variety of PPPs developed by the regional administrative services. The need for a flexible SEA system is also formulated in the SEA guidelines by Sadler and Verheem [10].

There is a consensus among EIA experts, the supervisory authority, and representatives of pressure groups that a future SEA system should have a legislative basis. Consequently, SEA can be included in the planned

EIA decree, which will replace the existing EIA legislation of the Flemish Government of March 23, 1989.

At a procedural and methodological level, many respondents from all groups are in favor of a screening phase in collaboration with specialists, the examination of alternatives, some form of public participation, and quality control.

The majority of administrative services prefer a system for internal screening. All other groups reject this option. Screening on the basis of a negative list is mostly rejected, whereas screening on the basis of general questions on sustainability is mostly accepted.

The majority of the group of EIA experts, supervising authority, and pressure groups hold the opinion that not only those PPPs that have a spatial dimension or deal with land use should be subject to SEA, but that it should be applied to a broader set of PPPs. This indicates that SEA in Flanders should be broader than the proposal of the European Directive on SEA presented by the European Commission. In this proposal, SEA is restricted to plans and programs that have a spatial dimension or deal with land use and are developed in a formal planning procedure for sectors such as transport, energy, waste management, water resource management, industry, telecommunications, and tourism [2].

There is no agreement on the organization of the scoping phase. A large majority of EIA experts prefer a scoping phase by a group of experts, but pressure groups do not agree.

Stakeholders are generally in favor of public participation, at least during certain phases of the SEA procedure. Participation is considered important in the preparatory stages of SEA and at the end of the process. It is considered much less important during the preparation of the SEA report. There is no agreement as to how public participation should be organized, although a slight preference is given to a system in which participation is organized on a case-by-case basis.

The examination of alternatives is considered an essential part of the SEA report by the EIA experts, the supervisory administration, and the pressure groups. Examination of the “most environmentally friendly” alternative is considered especially important. Respondents from administrative services are least enthusiastic about the examination of alternatives.

EIA experts, supervisory administration, and pressure groups all favor quality control. The respondents from administrative services are less enthusiastic. Quality control by an independent commission or a specialized public agency is considered very acceptable.

5. The basics of an SEA system for Flanders

The most important feature of the proposed SEA system is its flexibility. The SEA system can be adapted to either the subject that is being examined or the experience of those who will have to do the SEA.

Administrations are offered the possibility of a gradual introduction and extension of the SEA system. Moreover, they can choose between the introduction of a separate SEA system or the integration of SEA methodology in their existing policy development and planning procedures.

The implementation of the proposed SEA system is based on the following basic principles:

1. Implementation should be parallel to an improvement of the existing project-level EIA procedure. SEA and project-level EIA should be tuned to each other and complement each other. On the one hand, improving existing project-level EIA will rid the system of its current limitations [5]. On the other hand, it will allow a tiered approach. The principle of tiering ensures that environmental impacts are assessed at the appropriate level of decision-making. Several conditions have to be met before this is introduced. Authorities at all levels must underline the importance of the tiering principle. It is applicable only to initiatives that fit into long-term, transparent, and realistic policies and objectives. It also requires close cooperation and interaction between project EIA and SEA, improved generation and treatment of data, and information flow.
2. The fundamentals of SEA should be introduced by law, and more practical and detailed guidelines should be developed within the departments. It is impossible to develop a single procedure to be used by all departments, applicable to every PPP.
3. SEA is a learning process, and the experiences and specific needs of different administrations should be taken into account. Training and raising the awareness of concerned staff members should be emphasized. SEA at higher levels will require strong information and communication systems. Coordination, communication, and quality control are very important in a successful SEA system.
4. The introduction of SEA should be supported by a specialized team of experts. An SEA unit should be introduced within the administration of the Ministry of the Flemish Community. This unit should support and supervise the introduction of the SEA system and should deal with quality control throughout the SEA process. It should be a forum for information exchange and a training center for everyone involved in SEA.

6. Development of an SEA system proposal

Within this SEA system proposal, organizations are given relative freedom, at least for a starting period, to adjust the rate of introduction, the extent of investigation, and the procedural form. The system consists of (a) modules that can be integrated into existing procedures or (b) self-supporting procedures. It is suggested that the latter option be implemented

in services where procedures for the development and assessment of decisions are not well structured, not transparent, or sometimes not even existing, or where the SEA system will be imposed by law.

The proposal aims to present a flexible and transparent methodology for an SEA system by providing several options for implementation and modules for integration.

6.1. Procedural integration

The surveys indicated large discrepancies between the various government administrations regarding existing procedures in decision-making and (environmental) impact assessment of decisions. Administrations or departments whose major decisions are most likely to have an impact on the environment often have more elaborate procedures in operation, sometimes even full procedures for environmental assessment. Such organizations will not benefit from a separate SEA procedure. It is therefore more appropriate to integrate all necessary SEA procedural building blocks (or modules) into the existing procedures. An example of how this could be accomplished in practice for the land-use planning procedure [11] is illustrated in Fig. 1.

The following modules at least should be integrated into existing procedures if this option is retained:

- Screening
- Scoping (if further investigation is required)
- Writing the SEA report containing (i) content and objectives, (ii) the baseline, (iii) relevant norms, policies, and environmental protection measures, (iv) possible environmental impacts, (v) alternatives to meet the objectives, and (vi) prevention or mitigating measures
- Public participation
- Publication of PPP proposal and its adjustments.

6.2. Phased implementation of self-supporting procedures

Self-supporting procedures are classified as “1-star to 5-star procedures” according to increasing complexity and built-in guarantees for increasing quality of results. The 1- to 5-star procedures provide options for the depth of investigation as well as a time path for gradual implementation. All administrations could immediately start with the 1-star procedure (Fig. 2), i.e., the use of the screening workbook. They may gradually consider moving up to a higher star procedure as they gain experience and could then motivate their staff. When they reach the 3-star procedure, they will comply with the minimal requirements for the final draft of the EC proposal on SEA for certain plans and programs [2]. The 4-star procedure corresponds to the proposals for SEA made by the Commission Bocken [8], a commission set up by the Flemish government to revise the environmental legislation of the Flemish Region. In addition, the 5-star procedure fulfills all requirements of the best available practice drawn up by Janssens et al. [9].

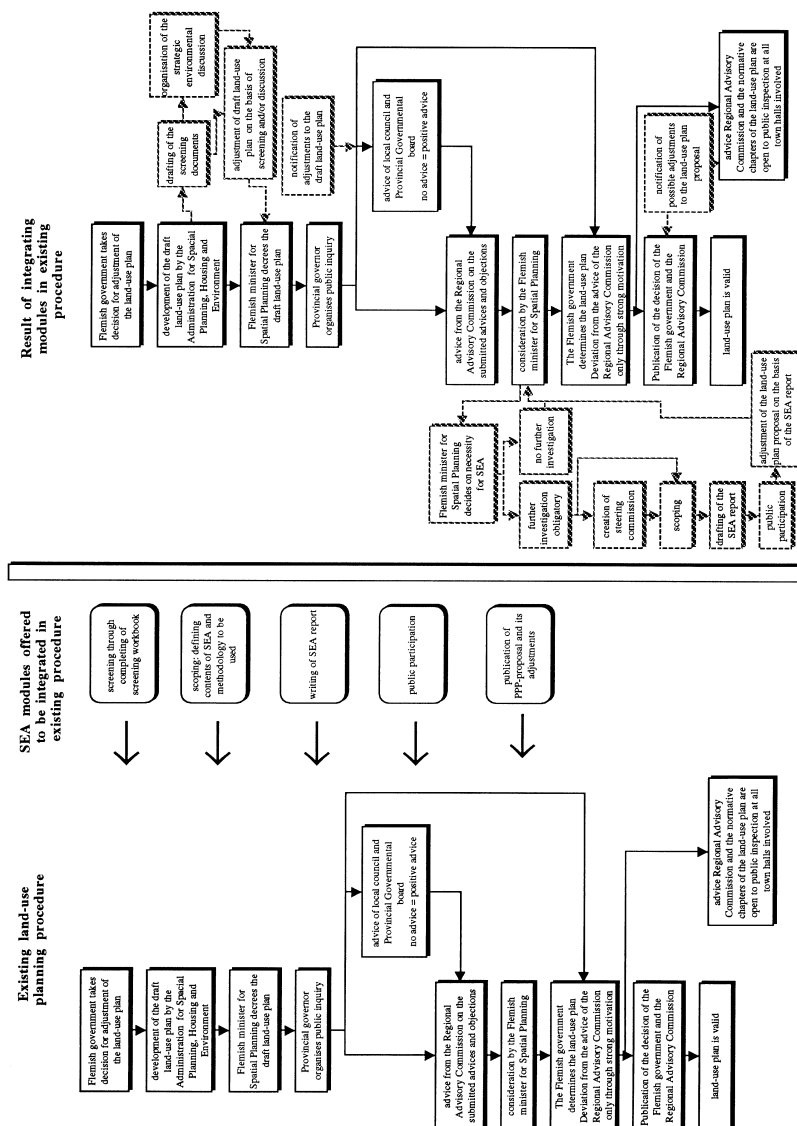


Fig. 1. A possible integration of SEA modules into the existing land-use planning procedure of the Flemish Region.

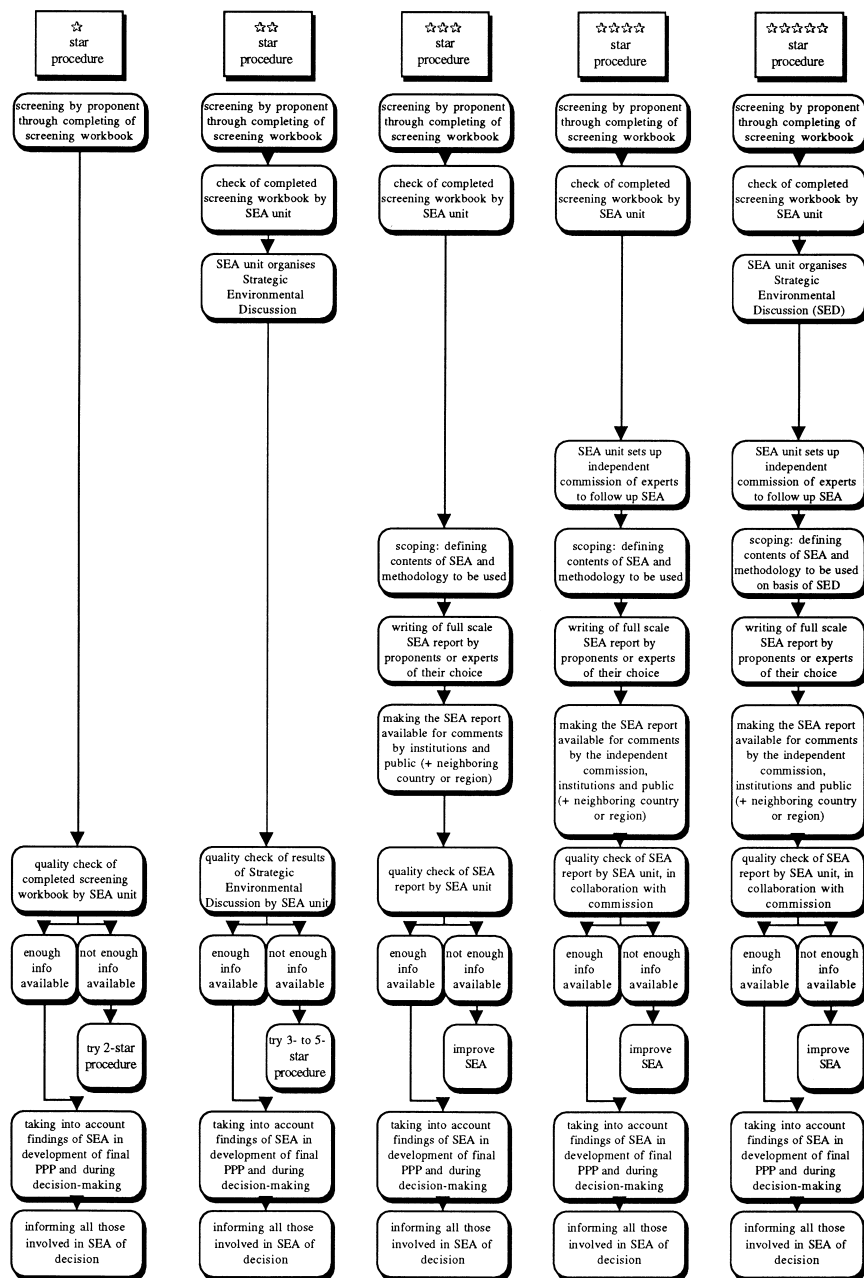


Fig. 2. Proposal for “standalone” 1- to 5-star SEA procedures.

7. Five variants of SEA procedure

The 1-star procedure is limited to a simple screening of the PPP. A strategic environmental discussion (SED) is added to that in the 2-star procedure. The 3-star procedure includes a screening phase, a limited scoping (without a commission of experts involved), the drafting of an SEA report, and public participation. The main feature of the 4-star procedure is the introduction of an independent commission of experts, which participates in the whole SEA process. The 5-star procedure combines all steps proposed in the 1- to 4-star procedures into one comprehensive system. The 1- and 2-star procedures are recommended for policy proposals of the highest order or plans in very early stages of development. Both procedures have no extensive requirements for public involvement and can be accomplished behind closed doors. They are therefore well suited for preliminary Cabinet proposals that are not ready for public debate but which could benefit from an internal environmental evaluation. The 1- and 2-star procedures also could be useful initially for administrative services that have no experience with impact assessment and need time to gradually incorporate it. The 3- to 5-star procedures are most suited for PPPs that will be subject to the future European Directive. The 3-star procedure complies with the existing proposal for European Directive, and the 4- and 5-star procedures build on this and include the introduction of an independent commission of experts and the SED. Highly controversial PPPs or initiatives that might have significant environmental consequences should therefore be subject to either the 4- or 5-star procedure. It is of utmost importance that administrative services justify why they worked with any one of the 1- to 5-star procedures. A more detailed discussion of the different steps in the procedures follows.

7.1. Screening

The use of a screening workbook is the first step of the star procedures and is common to all five procedures. It should serve as a logbook, accompanying the PPP from the initial concepts to implementation. The screening workbook consists of:

- A screening manual for the preliminary identification of possible environmental, social and, economic impacts resulting from the adoption of the PPP or resulting actions;
- Formats for the provision of general information on the PPP, such as goals, initiators, level of decision-making, whether it has a spatial dimension, and whether it is developed according to a formal procedure. The two last pieces of information will be required if the EC directive is to be implemented;
- A description of the level within the decision-making process and the remaining level of flexibility for adjustment of the PPP. Services to

be contacted for information and the existence of a plan for public participation should be mentioned;

- Prospects for continuity of the PPP, and conformity with relevant laws, regulations, or strategies.

The workbook should be verified and approved by the SEA unit, and it will be annexed to the final PPP proposal for evaluation prior to decision-making.

7.2. *Strategic environmental discussion*

In the 1- and 5-star procedure, the SED takes place after the screening phase, based on the idea of the environmental overview as described by Brown [1]. The SED should not be mistaken for a scoping exercise. Scoping sets the contents of the SEA report and the methodology to be followed. The SED should, however, be considered an initial form of environmental assessment, based on an extensive and structured discussion. A coordinator brings together representatives from all stakeholders and experts for brainstorming sessions. The coordinator will examine the PPP and make a structure for the discussion. The objective of the SED is to discuss possible environmental consequences of the PPP, the existing environmental management practices that could be applied, possible conflicts that may appear, and the development of an operational strategy for implementation of adjustments to the proposed PPP. The intention is to provide an alternative to the elaborate process of making a full SEA report for the PPPs that could be substantially adjusted on the basis of a few simple but structured discussions. The SED is well suited for the strategic level, because this level often deals with tentative proposals that would not benefit much more from a full and detailed SEA study. Table 3 gives an overview of the discussion topics that need to be brought up during the SED. It is estimated for Flanders that the SED could last from 1 to 3 weeks, depending on the complexity of the PPP and the depth of the discussion.

7.3. *Scoping*

On the basis of the advice given by the SEA unit after checking the screening documents or as a result of the outcome of the SED, a full-scale assessment may be determined to be necessary. In this case, a scoping exercise should take place. Once notified by the initiator of the PPP, the SEA unit may set up a steering committee of independent SEA experts. This will happen if the 4- and 5-star procedures are followed. In consultation with the experts, the PPP initiator will set the scope of investigations, contents of the report, methodologies to use, ways of programming public participation, and proposals for a communication plan. The independent commission of experts will remain in session throughout the SEA process and will be dismantled once the SEA report has been accepted by the SEA

Table 3

Discussion topics raised during the strategic environmental discussion, taken from the Environmental Overview Methodology developed by Brown [1]

<i>Description of the proposed PPP:</i> The screening workbook can be used as a basis to discuss the planning or decision-making process studied and the degree to which the PPP has been developed. All participants in the SED clarify their position to the proposed PPP.
<i>Links between the proposed PPP and existing environmental and social problems:</i> A discussion should take place on the influence of the PPP on the existing environmental and social problems. How will the proposed PPP contribute to solving these problems?
<i>Interactions between the PPP and the economy:</i> Economic forces that influence the PPP should be discussed.
<i>Overview of possible impacts of the PPP:</i> On the basis of the PPP impact checklist, which is part of the screening workbook, possible impacts of the proposed PPP should be discussed, focusing on the items that could not be filled out with any certainty during the screening phase. The discussion should result in a list of the most significant environmental impacts.
<i>Existing environmental management practices and possibilities in relation to the PPP:</i> Which technical and non-technical environmental management practices are available? Can they be introduced in practice?
<i>Expected conflicts in relation to the PPP:</i> Existing and expected conflicts between different actors in society as a result of the PPP should be discussed.
<i>New opportunities and possibilities created as a result of the introduction of the PPP:</i> A search should take place to maximize the positive effects of the PPP.
<i>Adjustments to the PPP and possible alternatives:</i> Participants in the SED look for possible changes to the proposed SED to make it more environmentally friendly, create new opportunities and possibilities, and minimize conflicts.
<i>Development of an operational strategy:</i> An action plan is developed to ensure that proposed adjustments to the PPP can be implemented in practice.
<i>Monitoring:</i> To ensure that environmental and other goals of the PPP are met, a monitoring plan should be developed.

unit. The quality of the SEA report can be increased through regular consultation between the commission and individuals involved in the preparation of SEA. Recommendations can be formulated by the independent experts of the committee on improving the SEA study.

7.4. Writing a full-scale SEA report

In contrast to the project-level EIA, the initiator is allowed to draw up the SEA report and may choose to call on external experts. Experts in the SEA system do not need to be accredited (which is the case at project-level EIA) because of the very wide variety of PPPs subject to SEA and the possibility of performing SEA internally. It would be an impossible task to accredit an SEA expert for every possible type of high-level government decision. Not accrediting SEA experts should go hand in hand with extra attention for external quality control. In principle, anyone is allowed to write an SEA report on the condition that strict quality standards are met.

7.5. Public participation

A plan for information and communication should be drawn up. Sadler and Verheem [10] have set guidelines on the content of such a plan. For the planning and implementation of public participation programs, we like to refer to the FEARO [7] document on “Public Involvement: Planning and Implementing Public Involvement Programs.” It is important to differentiate between information and participation of the public. In the proposal, opportunities and obligations to inform are more frequent than organization for participation. Opportunities for information and participation exist for each step in the SEA procedure. The norm of at least one round of public participation for each SEA study, suggested by Janssens et al. [9] in their Best Practices, has been retained.

The following are the most important recommendations on participation:

- A detailed format of the information and communication plan should be set during the scoping phase.
- One or more participation rounds should be organized. The draft PPP and the SEA report should at least be subject to public review.
- If significant transboundary impacts are expected, the procedure for public participation in neighboring countries should be initiated.
- The public and institutions involved in the development of the final PPP proposal should be informed as to whether the results of consultations and advice were taken into account in the SEA report.

7.6. Quality control and evaluation

Evaluations of the SEA process in general and the SEA reports in particular are important sources of feedback on the efficiency and efficacy

of the process, and the quality and reliability of assessments. Quality control and evaluation are essential to the continuous improvement of the SEA system and to inform a larger public about its successes and shortcomings. The SEA system would otherwise rapidly lose its credibility, resulting in low motivation and participation, and a gradual undermining of the operation of the system as a whole. The two major actors are the SEA unit and the public through participation. The SEA unit should be created to support and guide the entire SEA process through control of the screening documents, organization and guidance of the SED, set-up of a steering committee for full-scale SEA, and control of the SEA report. In certain cases the SEA unit may choose to set up an independent commission of experts, which can take over its task in quality control.

Quality control has always been very limited in the EIA process in Flanders [5] and should be taken more seriously in the future, both at the project and strategic levels. A “total quality management” (TQM) system would be ideal to solve existing quality problems [3]. The authors stress that TQM demands a new way of acting: staff is no longer just following orders but participating in the organization of work. Once in place, the TQM is a continuous self-improving process. Within each department of the Ministry of the Flemish Community, a specialized service is currently responsible for “integral quality improvement.” This policy should be extended to future SEA activities.

7.7. Monitoring

The use of indicators is particularly important during implementation of the PPP to monitor its impacts. These indicators will be selected and measured at an early stage of development of the PPP, according to a monitoring plan. The relevance of indicators increases with the level of abstraction of PPPs, because it becomes impossible to carry out a survey to gather detailed baseline data.

7.8. Linking SEA to the decision-making process

SEA results are assembled in standard documents and are included in the dossier for decision-making. These documents describe the consideration of environmental problems during the development of the PPP. The SEA decision-making documents present the results of the SEA in a concise and clear way and offer necessary information to the decision-makers. The ultimate goal of the SEA system is to make an optimal decision. The following important factors can interfere with this:

- Impacts are not always predictable or measurable.
- Due to conflicting interests, impacts may seem of low relevance compared to the whole PPP and its objectives.
- A compromise among social, economic, and environmental aspects

may lead to inconsistent solutions, jeopardizing the relevance and the effectiveness of the PPP and therefore also of the SEA system.

- Decision-making remains eventually a political process. Mutual understanding and motivation are vital if every proposal is not to be destroyed from the start.

8. Implementing the proposed SEA system in the Flemish region

The proposed SEA system was developed to be implemented by the Ministry of the Flemish Community. Most decisions are made within this Ministry at a regional and strategic level. Decisions include almost all regional policy-making, planning, and program development. The Ministry houses all administrative services of the regional Flemish government. Table 4 shows the basic structure of the Ministry, which is divided into six departments, is as follows: Department of Co-ordination; Department of General Affairs and Finances; Department of Education; Department of Well-Being, Public Health and Culture; Department of Economy, Employment, Internal Affairs and Agriculture; and Department of Environment and Infrastructure. On the basis of an analysis of the annual reports of the departments, the following remarks can be made:

- The following departments make decisions that have major environmental consequences: Department of Environment and Infrastructure; Department of Economy, Employment, Internal Affairs and Agriculture; and Department of General Affairs and Finances.
- The activities of the following departments have much less of an impact on the environment: Department of Well-Being, Public Health and Culture; Department of Co-ordination; and Department of Education.
- Certain administrative services such as those responsible for human resources management, acquisitions, and accounting will not have important direct environmental consequences. They will benefit more from an environmental care system than from an SEA system.
- Each department has an internal coordinating administrative service. This service will not have major environmental impacts, but may play an important role in the SEA system because implementation of this system will require a major effort in collaboration, consultation, communication, and discussion between several administrative services.
- The administrative unit for Strategic Planning and Policy Evaluation may play an important supporting role in SEA, because it is responsible for stimulating and coordinating strategic planning in all departments of the Ministry.
- Administrative services that are responsible for making budgets, granting subsidies, and the developing taxation policies have no direct environmental impacts, but have a very important indirect influence.

Through the introduction of financial policies they can promote more environmentally friendly activities and discourage environmental harmful initiatives.

- Supervisory services within the Ministry can be involved in the SEA system in the monitoring phase. They can be made responsible for control of the implementation of mitigation measures.

A number of examples can be given of plans that were discussed recently by the Flemish government, and which could have benefited from an SEA system: the Flemish Environmental Policy Plan, the Flemish Household Waste Plan, the Spatial Structure Master Plan for Flanders, citywide Mobility Plans, and the Manure Reducing Action Plan for Flanders.

The Flemish Region is recommended to work in close collaboration with the federal authorities in implementing an SEA system. Contrary to most other federal states, the Belgian federal system has no hierarchic structure. Federal and regional authorities are positioned at the same level and therefore can cooperate as equal partners. On the one hand, the different authorities will develop policies and plans independently; on the other hand, their policies will fail if they do not cooperate. It is clear that federal policies will influence the environment in the Flemish Region; therefore SEA also should be encouraged for such policies.

The SEA system developed by the Vrije Universiteit Brussel can be introduced at the policy level, next to the planning and program development level. Policies were considered in this study, although Flemish authorities indicated that they are only interested in SEA for plans and programs at this time. Still, policies were included because the authors wanted to encourage the Flemish government to take into account the environmental consequences of its policy-making and because environmental policy appraisal would be the next step forward after the introduction of SEA for plans and programs.

A draft EIA decree for the Flemish Region currently is being discussed. This would replace existing EIA legislation. It includes EIA for plans and programs. It was developed simultaneously with this study and therefore does not take into account the recommendations presented in this paper. A debate on the future of SEA is only beginning in Flanders. The SEA system proposals will be presented at a conference on the introduction of SEA, which is planned by the Ministry of the Flemish Community. Only time will tell if the SEA system proposal will be implemented fully or partially in the Flemish Region of Belgium.

9. Conclusions

One of the major results of the SEA survey among key stakeholders is the finding of broad-based support for the introduction of SEA in Flanders.

On the one hand, many respondents from administrative services do not oppose SEA; on the other hand, they do not often correctly estimate the environmental consequences of their own activities. Many respondents from the key stakeholder groups are in favor of an SEA system that includes a screening in collaboration with specialists, the examination of alternatives, some form of public participation, and quality control. The survey results show the need for a flexible SEA system, taking into account the specific requirements and experiences of the various administrative services and the wide variety of PPPs that are developed by the regional government and administrative services.

Basic features of the proposed SEA procedure are a flexible system encouraging a gradual introduction and extension of the SEA system with the support of a team of public officials specialized in SEA; leaving the choice to the different departments if they would like to introduce a separate SEA system or integrate SEA principles in existing policy development; and planning procedures making use of preset SEA building blocks, such as screening, strategic environmental discussion, scoping, drafting of an SEA report, public participation, and quality control.

In this study we did not make an attempt to select PPPs that should be subject to SEA and PPPs that should be exempted from SEA, because all PPPs with potential significant impacts should preferably be examined. Excluding certain PPPs from SEA before the specific circumstances are known is not encouraged and is a political decision.

Implementation of the SEA system proposal requires changes to traditional ways of planning and policy-making. Individuals involved will have to cooperate to make it work. Problems that might be encountered and need to be overcome are (a) certain officers at administrative services may not be motivated to introduce an SEA system; (b) certain individuals may see SEA as a threat to their functioning and may not find it useful; (c) an SEA system may be set up that lacks the necessary financial means and expert support (confirming the idea of some individuals that SEA is not working well and therefore not useful); and (d) certain parts of the proposal may not have the hoped for results and may have to be adjusted. Having a team of dedicated SEA specialists within a strong SEA unit is an essential element of an efficiently functioning SEA system. Showing the usefulness of SEA is important and can be accomplished through the development of pilot SEA reports and the organization of training sessions.

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